A Re-Think of Starshade Missions: Ground up

To Inform NASA Management

W. Cash

This is THE critical point in Starshade Missions

The direction is being set now.

Make a mistake or overlook something now and pay the price many times over in the future.

(We cannot afford to proceed the way JWST did.)

The Science goals are clear. The path to achieving those goals is fraught with peril.

What can we do now? What should we do now?

I am going to assemble a team of experienced, senior engineers and instrumental scientists.

Experienced means actual experience delivering working space hardware.

It also means a demonstrated record of commitment to starshades.

This will be done without funding from the ExEP Office to maintain independence.

But it will be done with the knowledge of ExEP, with the goal of helping.

That team will rethink starshade missions from the ground up, leaving no stone unturned.

It will provide a preliminary report to the SSWG in a few months, identifying:

Design issues and opportunities

Technology weaknesses and gaps

System level issues

A plan to get to TRL 5 and SRL 5 by 2019

An informed estimate of the cost and schedule for achieving the exploration goals